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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,704	08/18/2003	Sung-Oh Hwang	678-1240	4362

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DILWORTH & BARRESE, LLP  
333 EARLE OVINGTON BLVD.  
SUITE 702  
UNIONDALE, NY 11553

EXAMINER
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DUONG, FRANK

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/642,704

Applicant(s)

HWANG ET AL.

Examiner

Frank Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10, 11 and 18 is/are rejected.
- 7) ☒ Claim(s) 4-9 and 12-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                       |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1. This Office Action is a response to communications dated 08/18/03. Claims 1-18 are pending in the application.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

3. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

#### ***Information Disclosure Statement***

4. The information disclosure statements filed comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. They have been considered and placed in the application file.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 10-11 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Voltolina et al (Patent Application Publication 2005/0233760) (hereinafter "Voltolina").

Regarding **claim 1**, in accordance with Voltolina reference entirety, Voltolina discloses a method for providing a packet service data from a serving GPRS (General Packet Radio Service) support node (SGSN) to a user equipment (UE) when the UE moves to a second cell managed by a second radio network controller (RNC) (DRNC), the UE requesting permission to receive the packet service in a first cell managed by a first RNC (SRNC), in a mobile communication system providing a packet service (MBMS), the method comprising the steps of:

transmitting by the first RNC (SRNC) control information (Fig. 7; Multicast Attach Request) necessary for providing the packet service to the UE, to the second RNC (DRNC) (*page 4, paragraph [0054]*);

receiving by the second RNC (DRNC) the control information (*Multicast Attach Request*) and receiving the packet service data; and transmitting by the second RNC the packet service data to the UE (*the receiving and transmitting of the packet service data (MBMS) is inherently disclosed in the statement "the MBMS data for this user is being delivered via the DRNC," recited on page 5, paragraph [0056]*).

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Voltolina also discloses transmitting by the second RNC (DRNC) the packet service data (MBMS) to the UE through a radio bearer (RB) after

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setting up the RB according to the received control information (*page 5, paragraph [0056]*).

Regarding **claim 3**, in accordance with Voltolina reference entirety, Voltolina discloses a method for providing a packet service to a user equipment (UE) when the UE moves to a second cell managed by a second radio network controller (RNC) (DRNC), the UE requesting permission to receive the packet service (MBMS) in a first cell managed by a first RNC (SRNC), in a mobile communication system providing the packet service, the method comprising the steps of:

transmitting by the first RNC (SRNC) control information (MBMS Attach Request) necessary for providing the packet service to the UE, to the second RNC (DRNC) (Fig. 7; Multicast Attach Request) necessary for providing the packet service to the UE, to the second RNC (DRNC) (*page 4, paragraph [0054]*);

analyzing by the second RNC (DRNC) the control information (*MBMS Attach Request*) and notifying the first RNC (SRNC) that the second RNC (DRNC) is providing the packet service (MBMS), when the second RNC (DRNC) can provide the packet service (*page 8, paragraph [0056]*, *it is disclosed when the DRNC receives the control information, it decides what measures to take and sends back a Multicast Attach Response to the SRNC*); and

transmitting by the second RNC packet service data (MBMS data) to the UE (*page 5, paragraph [0056]*, *it is disclosed MBMS data for this user is delivered via the DRNC*).

Regarding **claim 10**, in accordance with Voltolina reference entirety, Voltolina shows a apparatus (Figs. 7-8) for providing a packet service to a user equipment (UE) when the UE moves to a second cell, the UE requesting permission to receive the packet service in a first cell, in a mobile communication system providing the packet service (MBMS), the apparatus comprising:

a first RNC (SRNC), which manages the first cell, for transmitting control information (MBMS Attach Request) necessary for providing the packet service to the UE requesting the packet service (*page 4, paragraph [0054]*); and

a second RNC (DRNC), which manages the second cell, for receiving the control information (MBMS Attach Request) from the first RNC (SRNC), analyzing the control information, notifying the first RNC that the second RNC is providing the packet service when the second RNC can provide the packet service, and transmitting packet service data to the UE (*the receiving, analyzing (deciding) and transmitting of the packet service data (MBMS) is inherently disclosed in the statement "the MBMS data for this user is being delivered via the DRNC," recited on page 5, paragraph [0056]*).

Regarding **claim 11**, in accordance with Voltolina reference entirety, Voltolina discloses a method (Figs. 7-8) for providing a packet service to a user equipment (UE) when the UE moves to a second cell managed by a second radio network controller (RNC) (DRNC), the UE requesting permission to receive the packet service in a first cell managed by a first RNC (SRNC), in a mobile communication system providing the packet service, the method comprising the steps of:

transmitting by the first RNC (SRNC) a UE identifier of the UE, a service identifier indicating the packet service, and information on a radio resource currently set up to the UE, to the second RNC (DRNC) (*Fig. 7 depicted MBMS Attach Request having new cell ID, MBMS service ID, U-RNTI of the UE is being sent from SRNC to DRNC and the accompanied description on page 4, paragraph [0054]*);

receiving by the second RNC (DRNC) the UE identifier, the service identifier, and the radio resource information, and notifying the first RNC (SRNC) that the second RNC is providing the packet service when the second RNC (DRNC) can provide a packet service indicated by the packet service identifier; and transmitting by the second RNC packet service data to the UE (*the receiving, notifying (request response) and transmitting of the packet service data (MBMS) is inherently disclosed in the statement "the MBMS data for this user is being delivered via the DRNC," recited on page 5, paragraph [0056]*).

Regarding **claim 18**, in accordance with Voltolina reference entirety, Voltolina shows an apparatus (Figs. 7-8) for providing a packet service to a user equipment (UE) when the UE moves to a second cell, the UE requesting permission to receive the packet service in a first cell, in a mobile communication system providing the packet service, the apparatus comprising:

a first RNC (SRNC), which manages the first cell, for transmitting a UE identifier of the UE, a service identifier indicating the requested packet service, and information on a radio resource currently set up by the UE (paragraph [0054]); and

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a second RNC (DRNC) for receiving the UE identifier, the service identifier and the radio resource information, notifying the first RNC that the second RNC is providing the packet service when the second RNC can provide the packet service, and transmitting packet service data to the UE (paragraph [0056]).

***Allowable Subject Matter***

6. Claims 4-9 and 12-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed inventions of base claims 3 and 10 and further limit with novel and unobvious limitations of *"sending by the second RNC a request for the packet service to a serving GPRS (General Packet Radio Service) support node (SGSN) when the second RNC cannot provide the packet service; sending by the SGSN a request for radio resource assignment for providing the packet service, to the second RNC, in response to the packet service request of the second RNC; assigning by the second RNC a radio resource for providing the packet service in response to the radio resource assignment request; notifying, by the second RNC, the first RNC that the second RNC is providing the packet service, after assigning the radio resource,"* as recited in claims 4-9 and limitations of *"sending by the second RNC a request for the packet service to a serving GPRS (General Packet Radio Service) support node (SGSN) when the second*



*RNC cannot provide the packet service; sending by the SGSN a request for assigning a radio resource for providing the packet service to the second RNC along with a service identifier in response to the packet service request from the second RNC; assigning by the second RNC the radio resource for providing the packet service in response to the radio resource assignment request; notifying, by the second RNC, the first RNC that the second RNC is providing the packet service, after assigning the radio resource; and transmitting by the second RNC the packet service data to the UE," as recited in claims 12, 14-17; and limitations of "transmitting by the second RNC the packet service data to the UE; and transmitting by the second RNC the packet service data to the UE over a common channel if a number of UEs requesting the packet service in the second cell is larger than or equal to a predetermined number, and transmitting the packet service data to the UE over a dedicated channel if the number of UEs requesting the packet service in the second cell is smaller than the predetermined number," as recited in claim 13, structurally and functionally interconnected with other limitations in a manner as recited.*

### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Einola et al (USP 6,438,370).

Hauge et al, Multicast in 3G Networks: Employment of Existing IP Multicast Protocols in UMTS, IEEE, pages 96-103, September 2002.

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3GPP TR 23.846 0.5.0, Multimedia Broadcast/Multicast Service, pages 1-43, 2002.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**FRANK DUONG**  
**PRIMARY EXAMINER**

April 22, 2007